Grand Coulee Dam

The key to the entire project is Grand Coulee Dam, the massive concrete structure which blocks the Columbia River to form Franklin D. Roosevelt Lake. This huge reservoir extends 151 miles to the Canadian border and makes water available for irrigation and power. The dam is also operated for flood and thermal control, and river regulation for navigation and downstream power production.

Power produced at Grand Coulee Dam is distributed and marketed throughout the Northwest by the Bonneville Power Administration. Payments by water users and revenue from the sale of power produced at Grand Coulee will repay nearly all of the $1.9 billion it is estimated will be invested in the project when completed. Construction costs allocated to power production are repaid with interest; those costs associated with the irrigation system are repaid without interest. Only about $48 million, allocated to items of general benefit such as flood control and improved navigation, are not repaid to the United States treasury.

A Third Powerplant is under construction at Grand Coulee Dam. The six generators which Congress authorized will have a capacity of 600,000 kilowatts each. When additional power is needed, the forebay dam and powerplant can be extended and another six generators can be installed, bringing the total capacity of the Grand Coulee plants to 9.8 million kilowatts.

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PROJECT STATISTICAL DATA

	Completed	Ultimate
Irrigation Facilities to serve	516,000 irrigable acres	1,095,000 irrigable acres
Powerplants (rated capacities)	2,076,000 kilowatts	9.8 million kilowatts
The Dam		
Length of crest		[1] 5,374 feet
Height above lowest bedrock		550 feet
Spillway width		1,650 feet
Concrete content		[1] 11,159,000 cubic yards
Major Reservoirs		
Franklin D. Roosevelt Lake		80,000 acres
Banks Lake (equalizing reservoir)		27,000 acres
Potholes Reservoir ..		21,000 acres
Left and Right Powerplants (existing)		
Turbines	9	150,000 horsepower each
	9	165,000 horsepower each
	3	14,000 horsepower each
Generators	12	108,000 kilowatts each
	6	[2] 125,000 kilowatts each
Station service units	3	10,000 kilowatts each
Third Powerplant (under construction)		
Turbines	6 auth.	820,000 horsepower each
	6 addl. ult.	820,000 horsepower each
Generators..	6 auth.	600,000 kilowatts each
	6 addl. ult.	600,000 kilowatts each
Pumping Plant		
Pumps	6 installed	65,000 horsepower, 1,600 c.f.s. capacity, each
Pump-generating units	6 additional (2 now under construction)	67,500 horsepower, 1,700 c.f.s. capacity, 50,000 kilowatts, each
Distribution System (now complete)		
Main canals		331 miles
Laterals		1,936 miles
Drains and wasteways..........................		2,046 miles

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[1] After completion of the presently authorized Third Powerplant construction program.

[2] All 18 main generators originally had a rated capacity of 108,000 kilowatts. A rewinding program presently underway has been completed on six, bringing their rated capacity to 125,000 kilowatts each. Two rewinds are scheduled each year until all 18 have been completed.

TO

FROM

As the Nation's principal conservation agency, the Department of the Interior has basic responsibilities for water, fish, wildlife, mineral, land, park and recreational resources. Indian and Territorial affairs are other major concerns of America's "Department of Natural Resources." The Department works to assure the wisest choice in managing all our resources so each will make its full contribution to a better United States—now and in the future.

March 3, 1849

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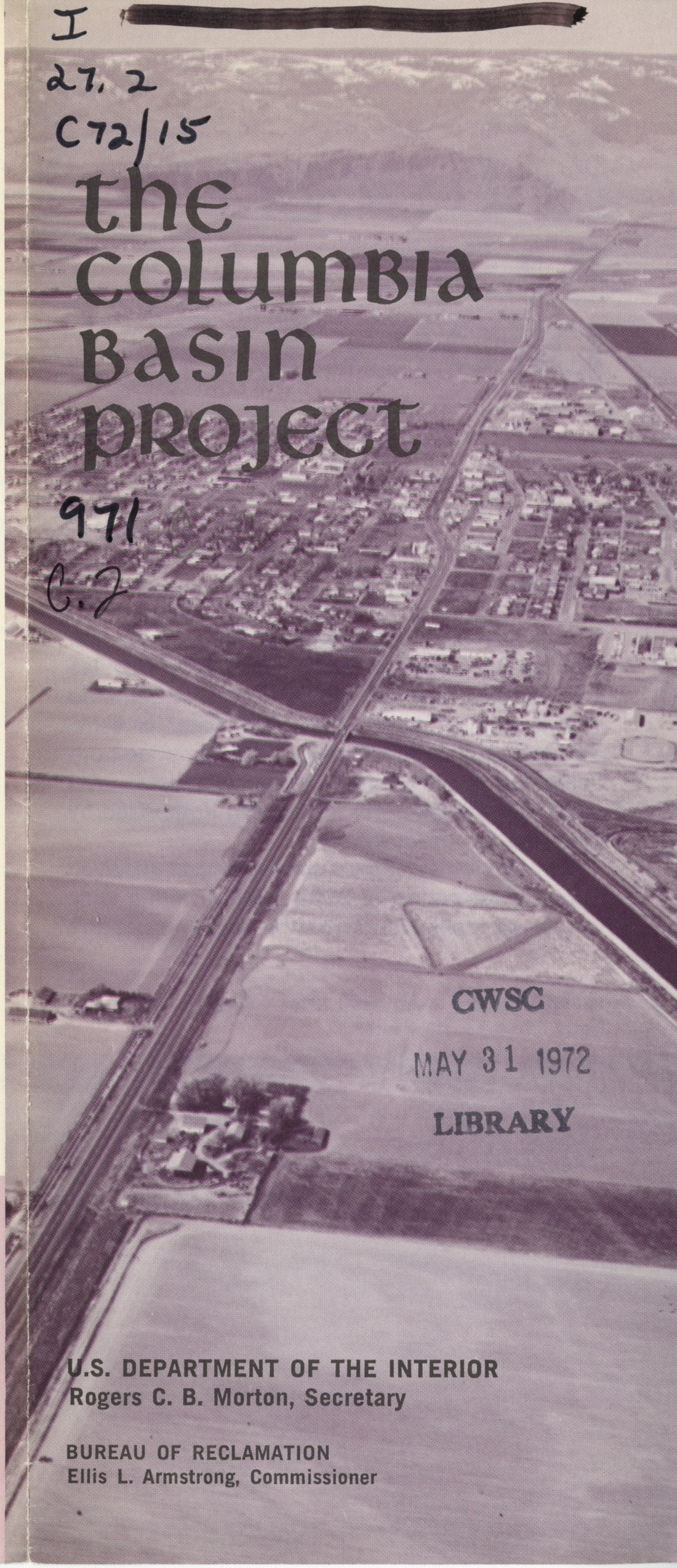

the COLUMBIA BASIN PROJECT

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Ellis L. Armstrong, Commissioner

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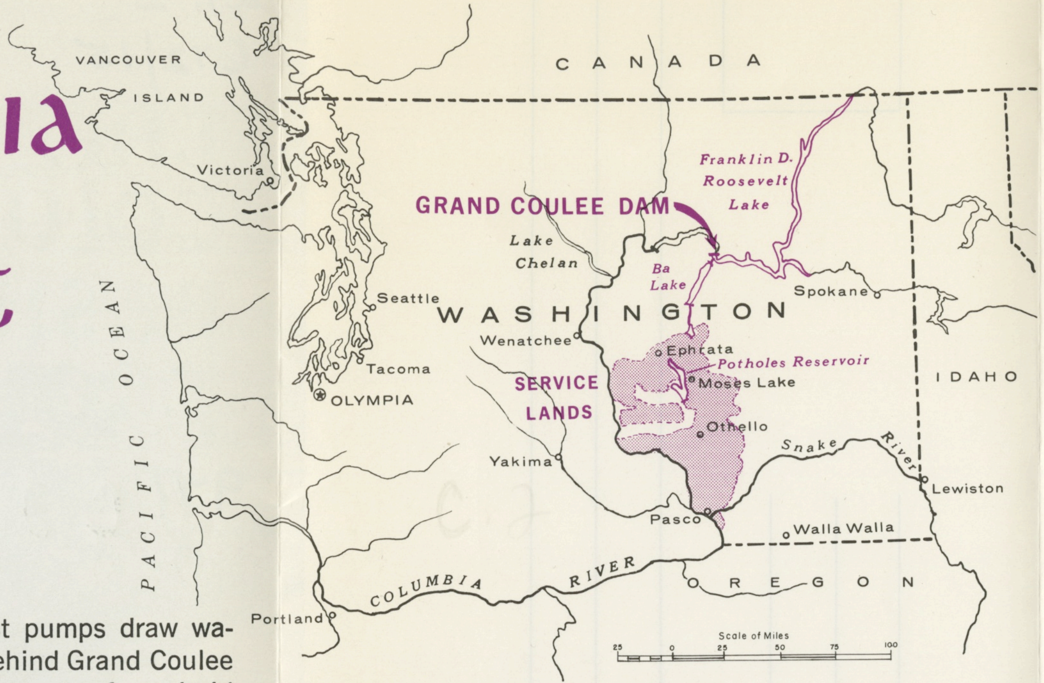

MAJOR PROJECT FEATURES

Irrigation

Some of the world's largest pumps draw water from the Columbia River behind Grand Coulee Dam to irrigate a half million acres of semiarid land in central Washington. This water is delivered to farms by the Bureau of Reclamation-built Columbia Basin project irrigation system. Another half million acres have been authorized by Congress for development.

Through 1970, farmers on the project received a total gross return of $928 million from a wide variety of crops. Some of the major crops are alfalfa hay, potatoes, sugar beets, field corn, various seed crops, and several vegetable crops for freezer processing. In addition, feedlots within the project fatten many cattle for Northwest markets.

The 88-mile-long West Canal helps transform semi-desert lands into productive farms.

Modern sprinkler systems are used extensively to irrigate the project's many crops.

Community Development

In an area where about 25,000 people lived before project development, nearly three times that many now make their home. Since 1948, when water was first delivered to project lands, the small towns in the area have grown and a few new ones have come into existence to meet the needs of the expanding agricultural economy. Nevertheless, there is no crowding, with only one town within the project having a population of more than 11,000. The population density for the entire developed area is about 25 people per square mile.

Over 100 agriculture processing and handling plants in the project area provide employment to thousands.

Water-skiing is a favorite sport on Franklin D. Roosevelt Lake, the reservoir created by construction of Grand Coulee Dam.

Boating on the man made and beautiful Banks Lake. Hundreds of thousands visit this lake each year to enjoy its many recreational opportunities.

Recreation and Wildlife Enhancement

The water, which made it possible to turn semiarid land into productive farms, has turned this same semidesert into a versatile, water-based recreation area. Here, each year, millions of people enjoy camping, boating, swimming, fishing, and other outdoor activities at the numerous parks, campgrounds, or elsewhere on the many lakes which have formed. In addition, the plentiful supply of waterfowl and upland game birds makes hunting a popular pastime. However, the need to conserve and protect the wildlife of the area has not been overlooked. Nearly 50,000 acres, scattered throughout the project area, have been set aside as reserves and refuges for the protection of game and other wildlife. Use of mechanical vehicles is being restricted in some areas to maintain the latter's primitive beauty.